

Figure 1A

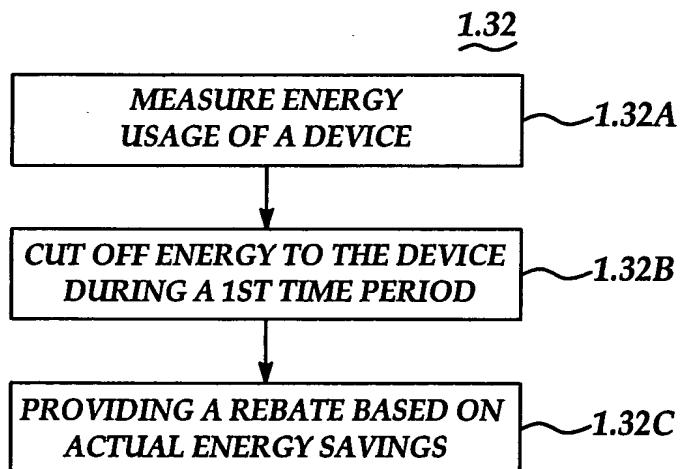


Figure 1C

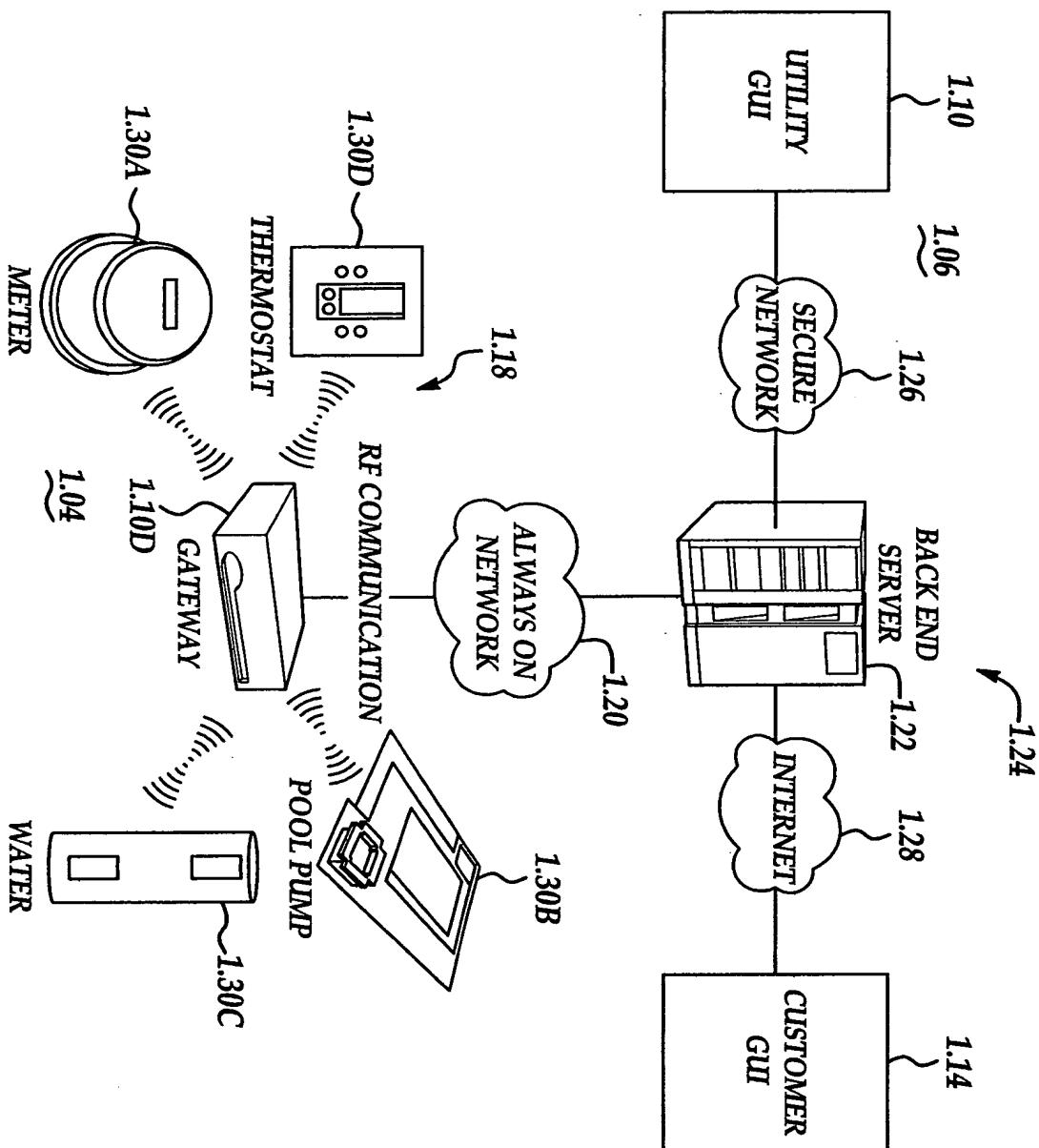


Figure 1B

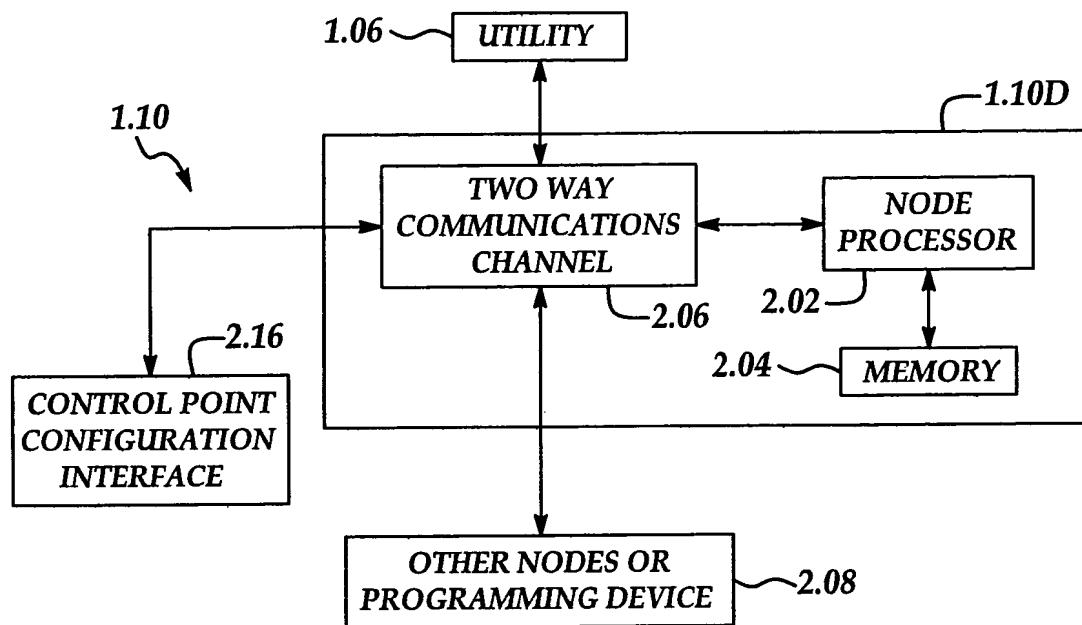


Figure 2A

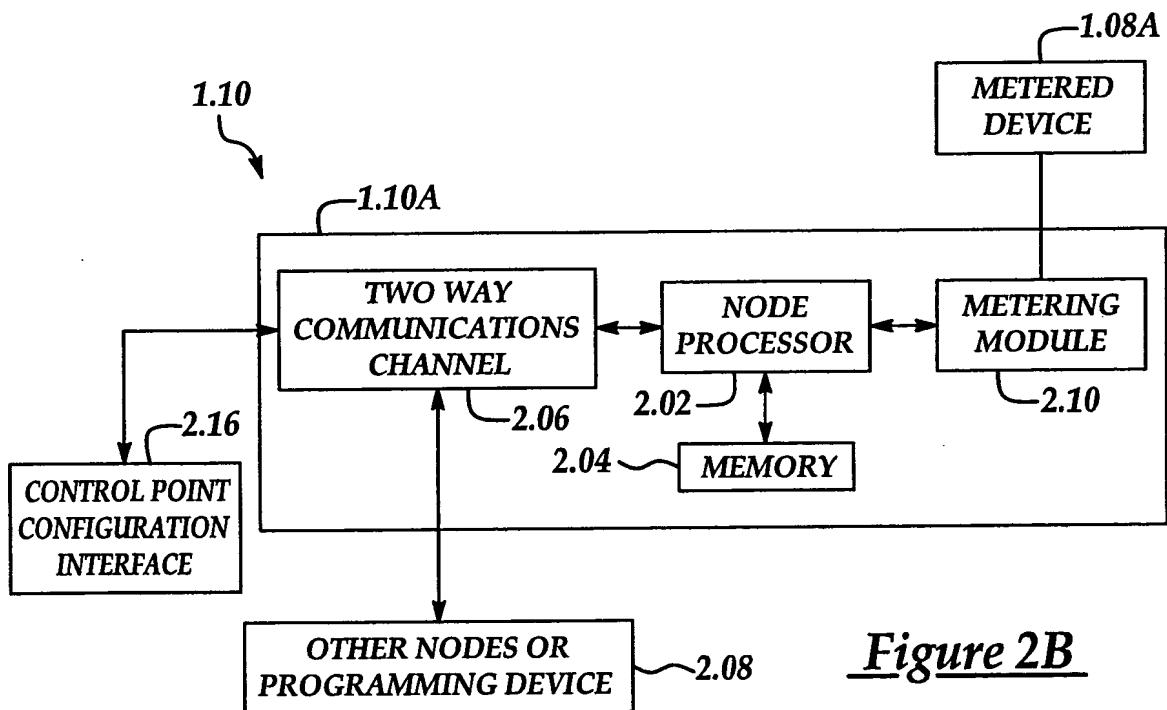


Figure 2B

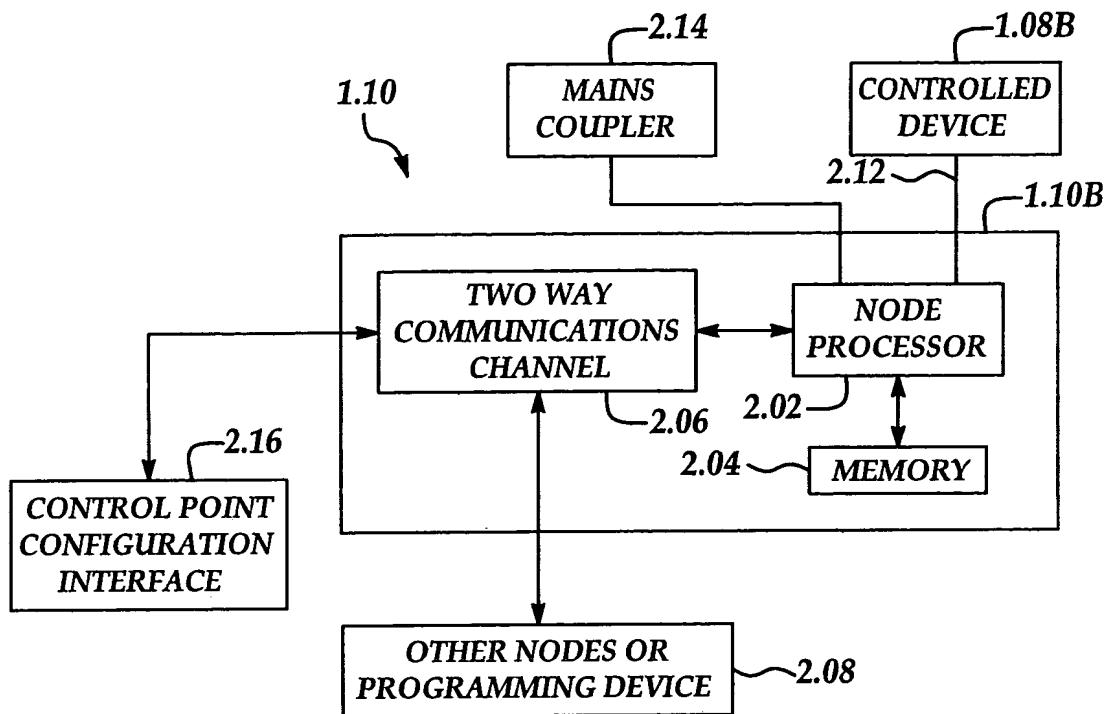


Figure 2C

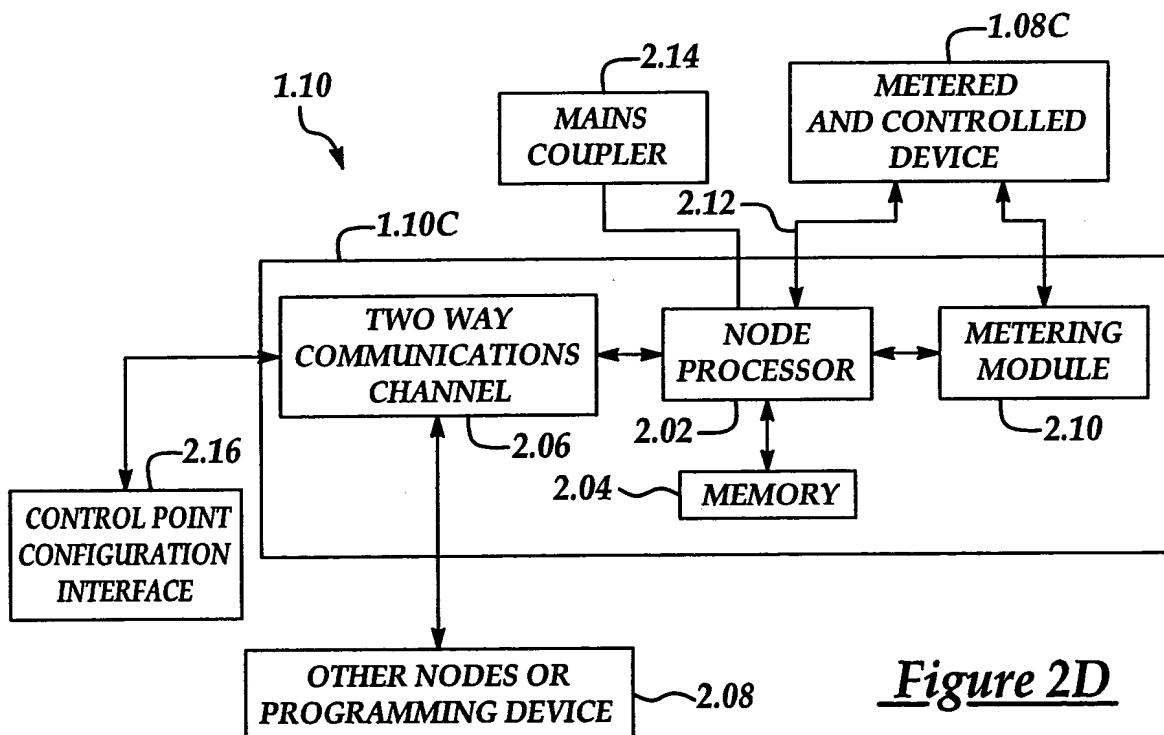


Figure 2D

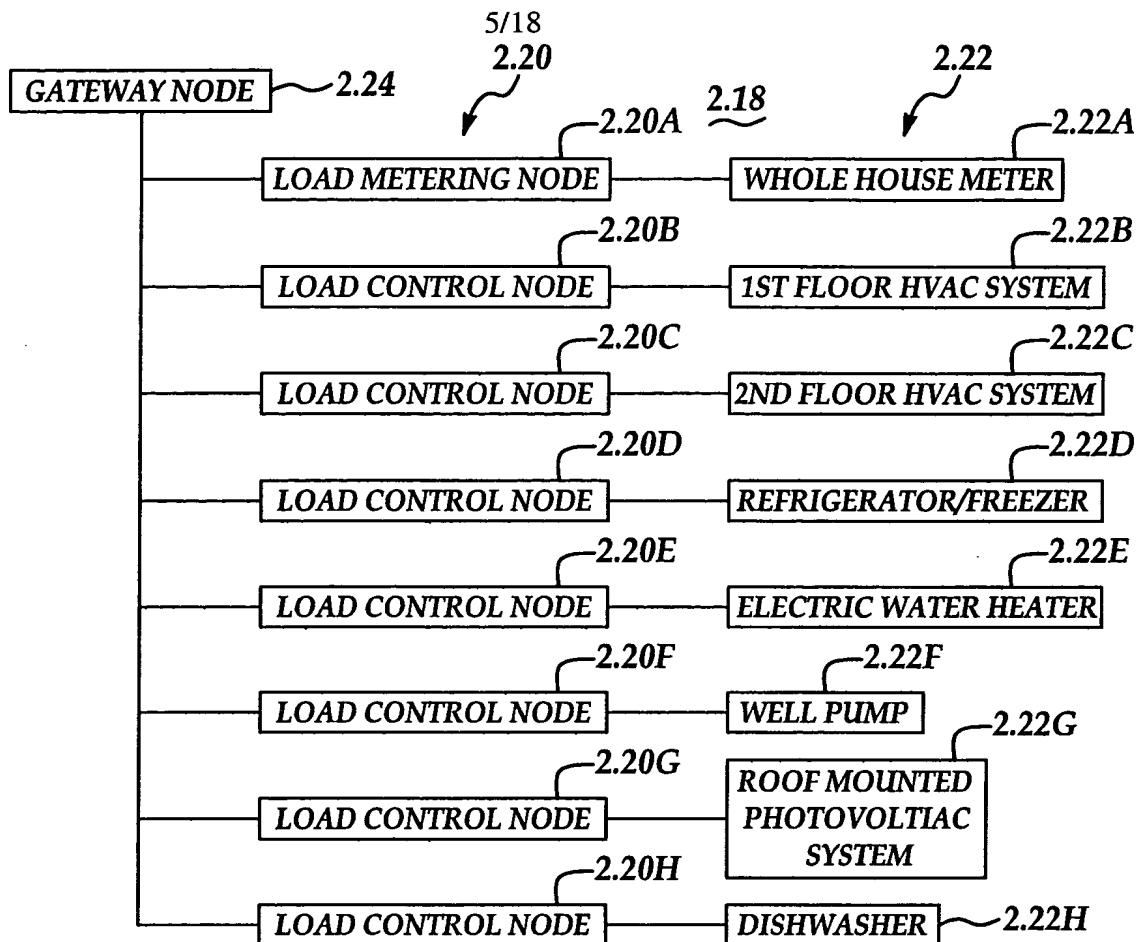


Figure 2E

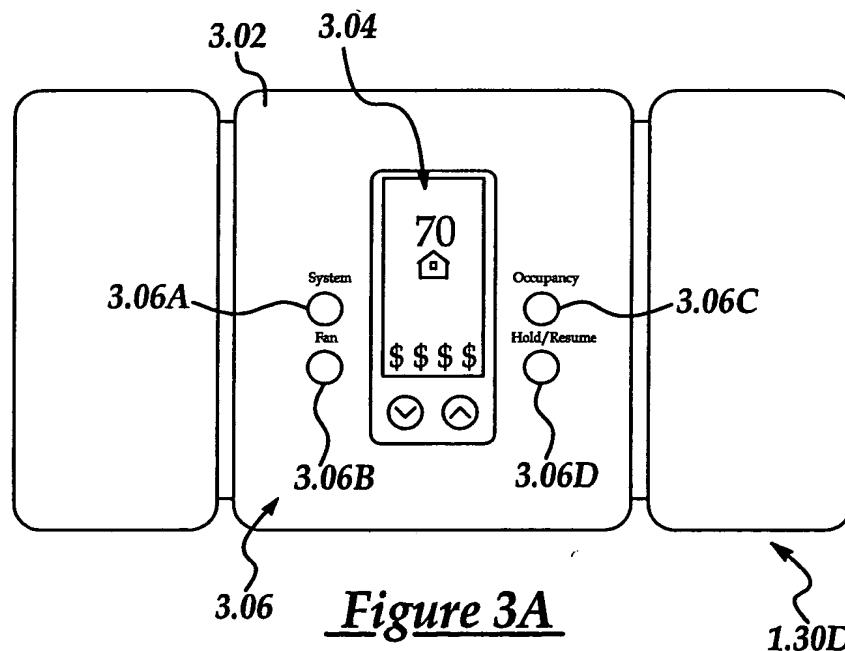


Figure 3A

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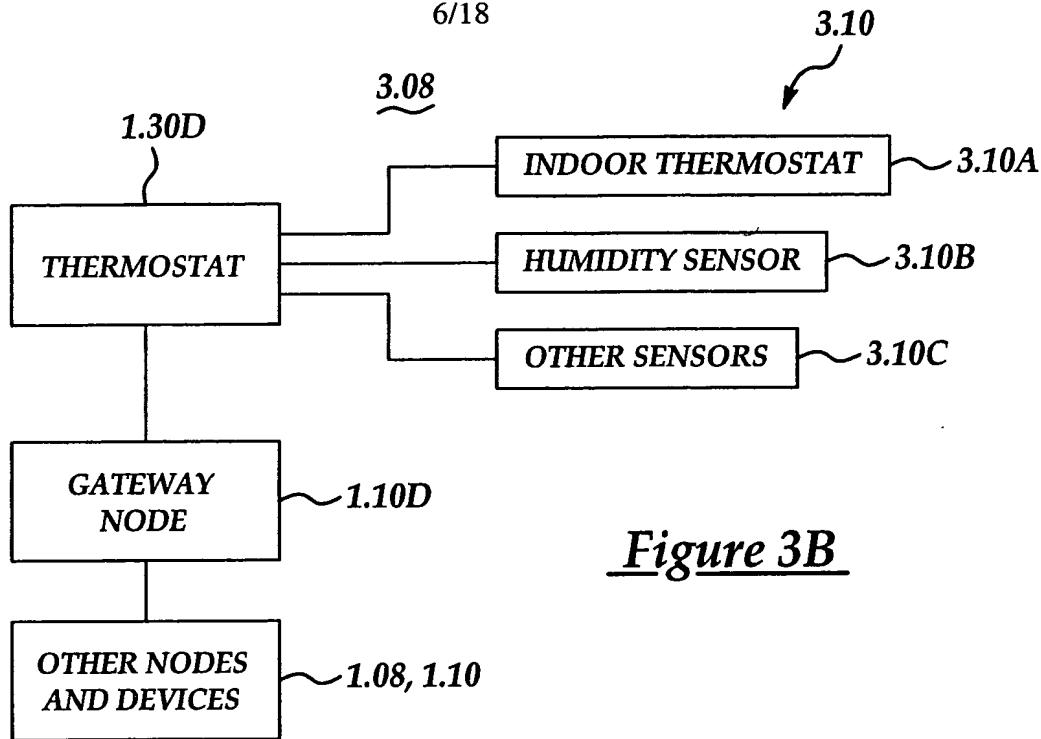


Figure 3B

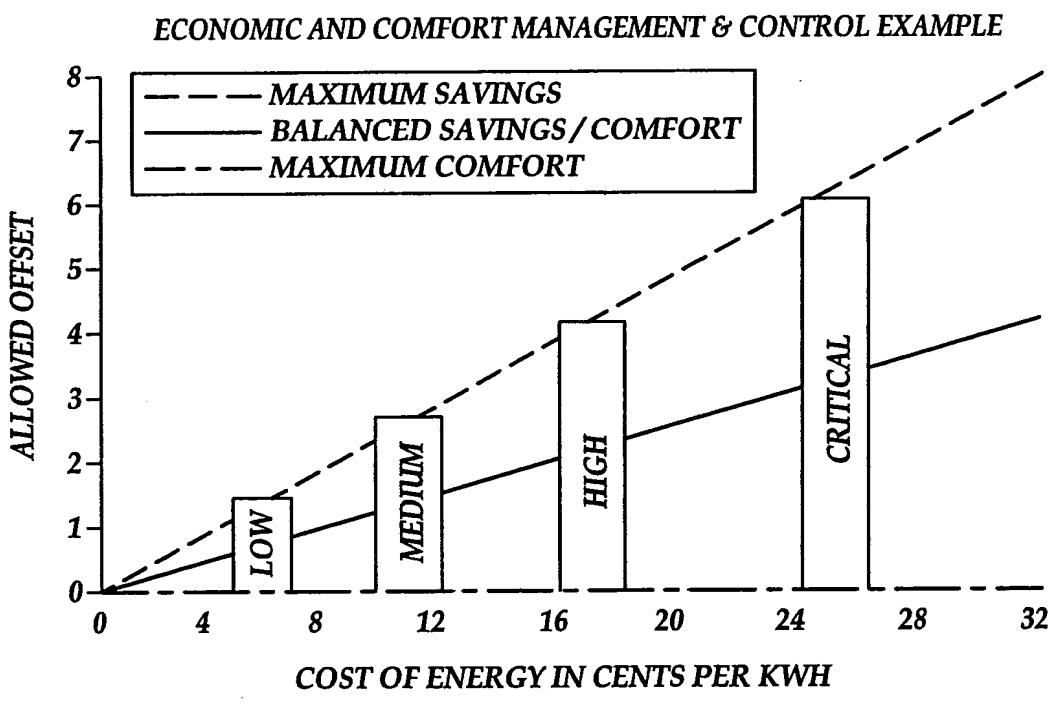


Figure 3C

ECONOMIC AND COMFORT MANAGEMENT & CONTROL EXAMPLE

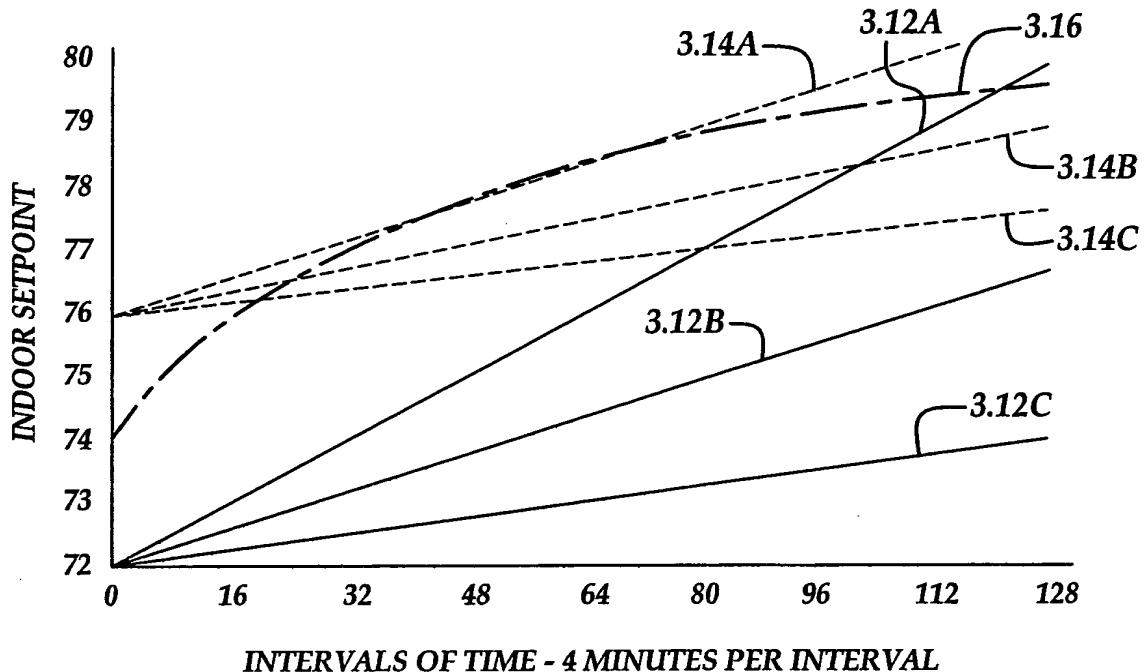


Figure 3D

ECONOMIC AND COMFORT MANAGEMENT & CONTROL EXAMPLE

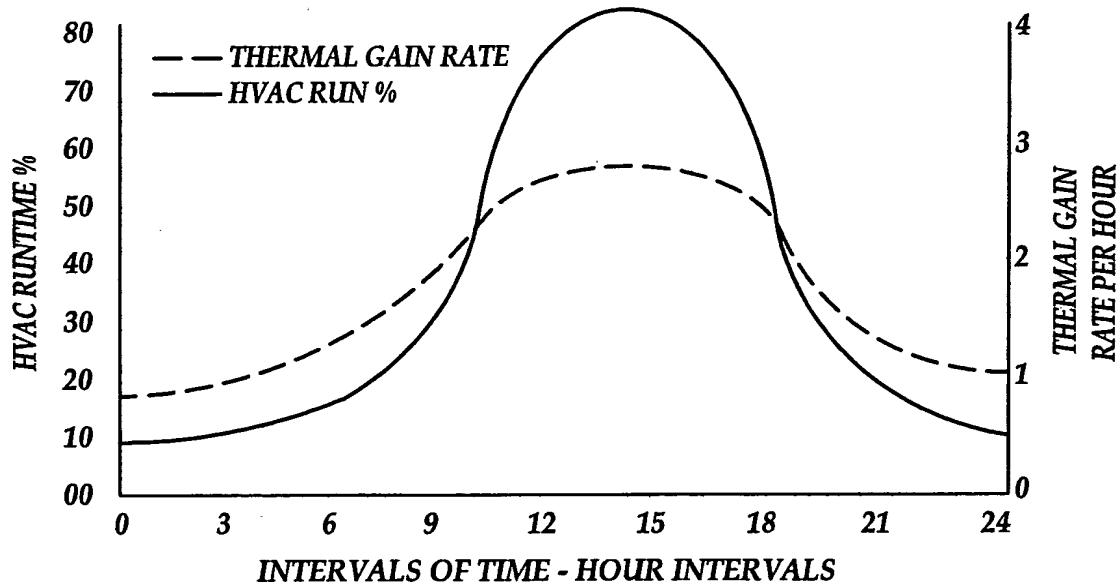


Figure 3E

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ECONOMIC AND COMFORT MANAGEMENT & CONTROL EXAMPLE

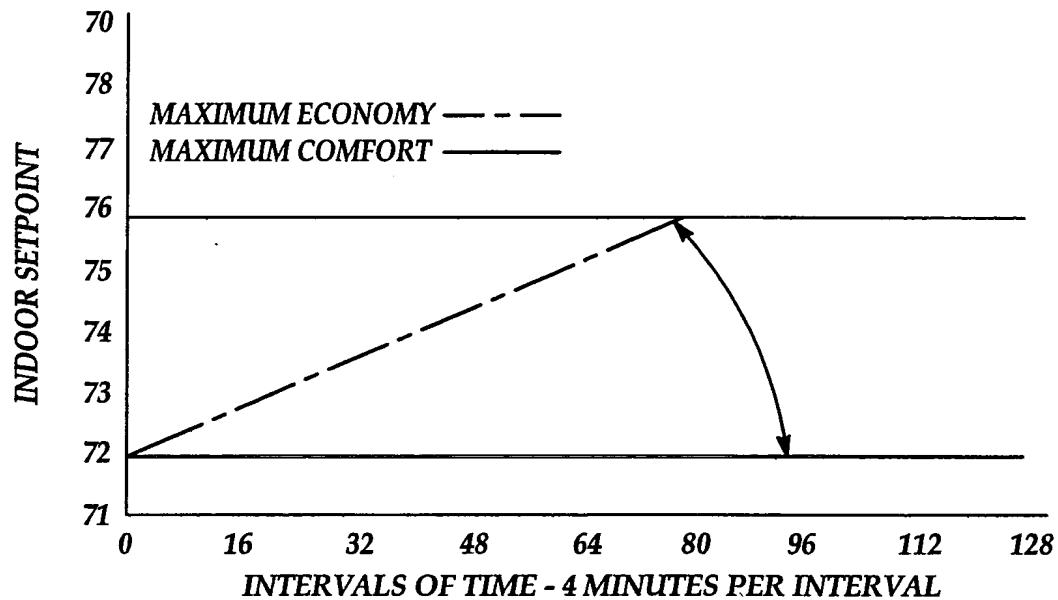


Figure 3F

ECONOMIC AND COMFORT MANAGEMENT & CONTROL EXAMPLE

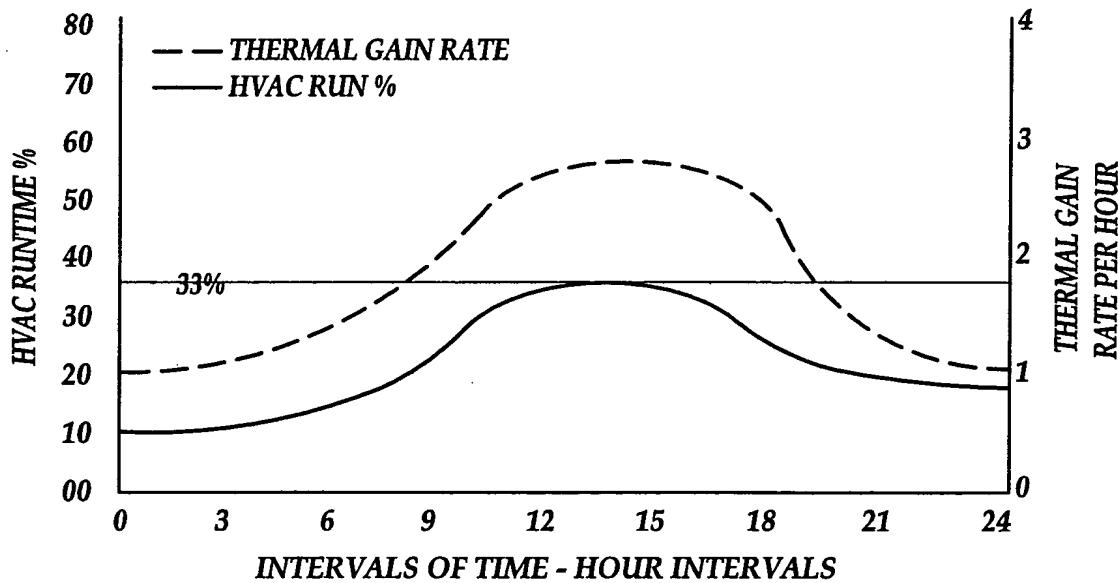


Figure 3G

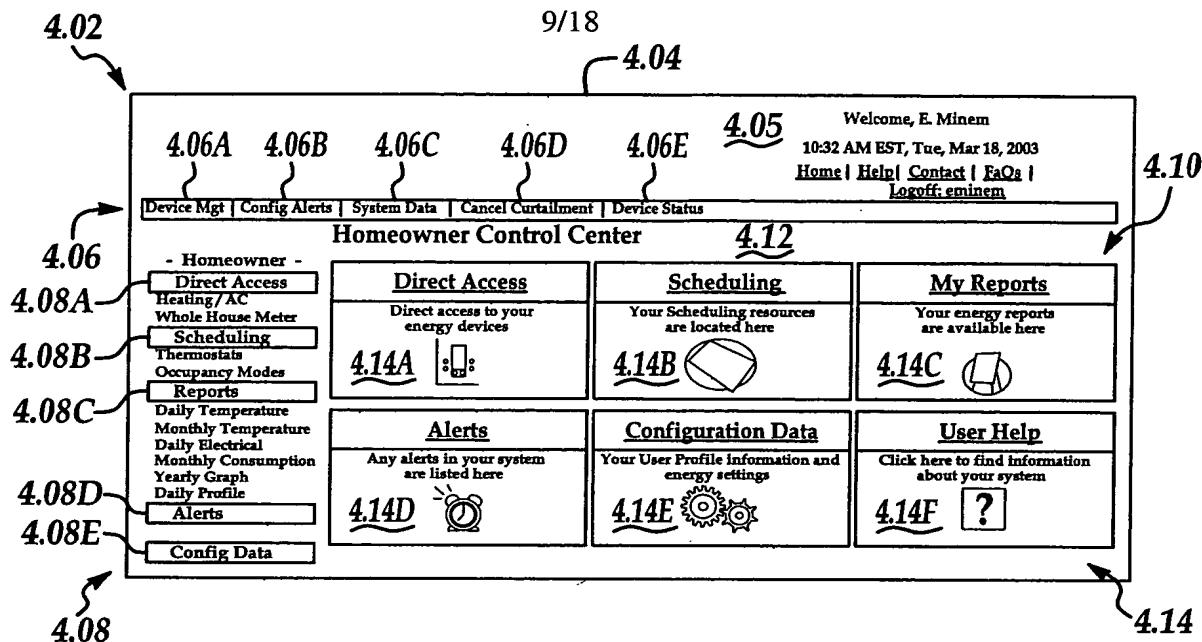


Figure 4A

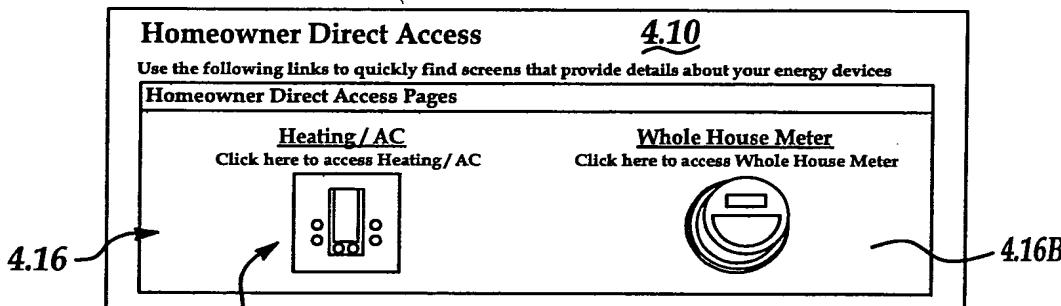


Figure 4B

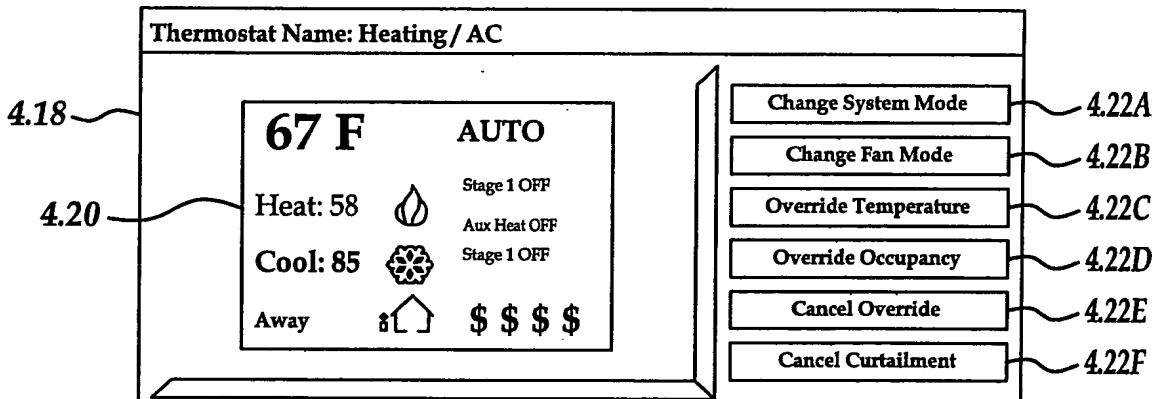


Figure 4C

10/18

4.24 → 4.10 ← 2.26

Occupancy Modes

Home	Away	Sleep	Vacant	User1	User2	User3	User4
------	------	-------	--------	-------	-------	-------	-------

When my home is in Home Mode Active

Use the following settings for the areas controlled by the Heating / AC thermostat

Cooling setpoint: 80 °F use: Economical Comfo Economy Profile 4.32

Heating setpoint: 68 °F My home is normally OCCUPIED during Home mode

Defaults Apply

4.28 ← 4.30 → 2.26

Figure 4D

4.28 → 4.30 ← 2.26

Occupancy Modes

Home	Away	Sleep	Vacant	User1	User2	User3	User4
------	------	-------	--------	-------	-------	-------	-------

When my home is in Home Mode Active

Use the following settings for the areas controlled by the Heating / AC thermostat

Cooling setpoint: 85 °F use: Economical Comfo Economy Profile 4.32

Heating setpoint: 58 °F My home is normally OCCUPIED during Away mode

Defaults Apply

4.28 ← 4.30 → 2.26

Figure 4E

2.26 ← 4.32

Occupancy Modes

Home	Away	Sleep	Vacant	User1	User2	User3	User4
------	------	-------	--------	-------	-------	-------	-------

When my home is in Home Mode Active

Use the following settings for the areas controlled by the Heating / AC thermostat

Cooling setpoint: 90 °F use: Economical Comfo Economy Profile 4.32

Heating setpoint: 45 °F Maximum Comfort
Balanced Comfort OCCUPIED during Vacant mode
Economical Comfort Apply

Figure 4F

11/18 4.10

Thermostat Scheduling

4.36		March		Next>		March		2003	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday			
						1 Weekend			
2 Weekend	3 Weekday	4 Weekday	5 Weekday	6 Weekday	7 Weekday	8 Weekend			
9 Weekend	10 Weekday	11 Weekday	12 Weekday	13 Weekday	14 Weekday	15 Weekend			
16 Weekend	17 Weekday	18 Weekday	19 Weekday	20 Weekday	21 Weekday	22 Weekend			
23 Weekend	24 Weekday	25 Weekday	26 Weekday	27 Weekday	28 Weekday	29 Weekend			
30 Weekend	31 Weekday								

Figure 4G

4.38 4.10

Thermostat Scheduling

Select Thermostat:	Heating / AC	Select Day Type:	Weekday	
Start>>	Start at midnight in:	Sleep	mode	
Then at	04:30am	switch to	User1	mode
Then at	05:00am	switch to	User2	mode
Then at	05:30am	switch to	Home	mode
Then at	07:30am	switch to	Away	mode
Then at	04:00pm	switch to	User2	mode
Then at	05:30pm	switch to	Home	mode
Then at	10:00pm	switch to	Sleep	mode
Click to show instructions				
<input type="button" value="Apply to 3/18/2003"/>		<input type="button" value="Apply to all Weekdays"/>		
<input type="button" value="Back to Calendar..."/>				

4.42 4.44 4.46

4.40

Weekday	
New Day Type	
Weekday	
Weekend	
Holiday	
8/13/2002	
2/18/2003	

Figure 4I

12/18

Configure Alert

Alerts		Channel		Configurable	Priority	Single/Aggregate
Alert Description	Destination	Primary email	Web Page			
Temperature out of Range	Home Occupant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	Single
Temperature out of Range	Service Provider	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	Single
Gateway Not Responding	Service Provider	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	Single
Temperature out of Range	Energy Provider	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	Single
Gateway Not Responding	Energy Provider	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	Single
Budget Limit Alarm	Home Occupant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	Single
Device is Malfunctioning	Home Occupant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	Single
Communication Failure	Home Occupant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	Single
Ramping Recovery Failure	Home Occupant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12	Single
Duplicate IP address	Service Provider	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12	Single
Temperature out of Range	Energy Provider	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12	Single

Note: You may add the secondary email as another channel by updating personal data. Click here to update account personal data

Submit Reset

Callouts in Figure 4J:

- 4.48 points to the 'Alerts' header.
- 4.50 points to the 'Submit' button.
- 4.52 points to the 'User Name' field ('E. Minem').
- 4.54 points to the 'Primary email' field ('eminem@aol.com').
- 4.56 points to the 'AccountID' field ('555').
- 4.58 points to the 'Phone#' field ('5555555555').
- 4.60 points to the 'Reset' button.
- 4.62 points to the 'Priority' dropdown for the first row.
- 4.64 points to the 'Single/Aggregate' dropdown for the first row.

Figure 4J

Reports

Temperature Reports	Electricity Usage	Cost & Consumption
Daily Temperature Monthly Temperature 	Daily Electrical Monthly Consumption 	Yearly Graph Daily Profile

Callouts in Figure 4K:

- 4.68A points to the 'Daily Temperature' link in the 'Temperature Reports' section.
- 4.68B points to the 'Monthly Temperature' link in the 'Temperature Reports' section.
- 4.68C points to the 'Daily Electrical' link in the 'Electricity Usage' section.
- 4.66 points to the 'Cost & Consumption' section header.
- 4.68D points to the 'Yearly Graph' link in the 'Cost & Consumption' section.
- 4.68E points to the 'Monthly Consumption' link in the 'Cost & Consumption' section.
- 4.68F points to the 'Daily Profile' link in the 'Cost & Consumption' section.

Figure 4K

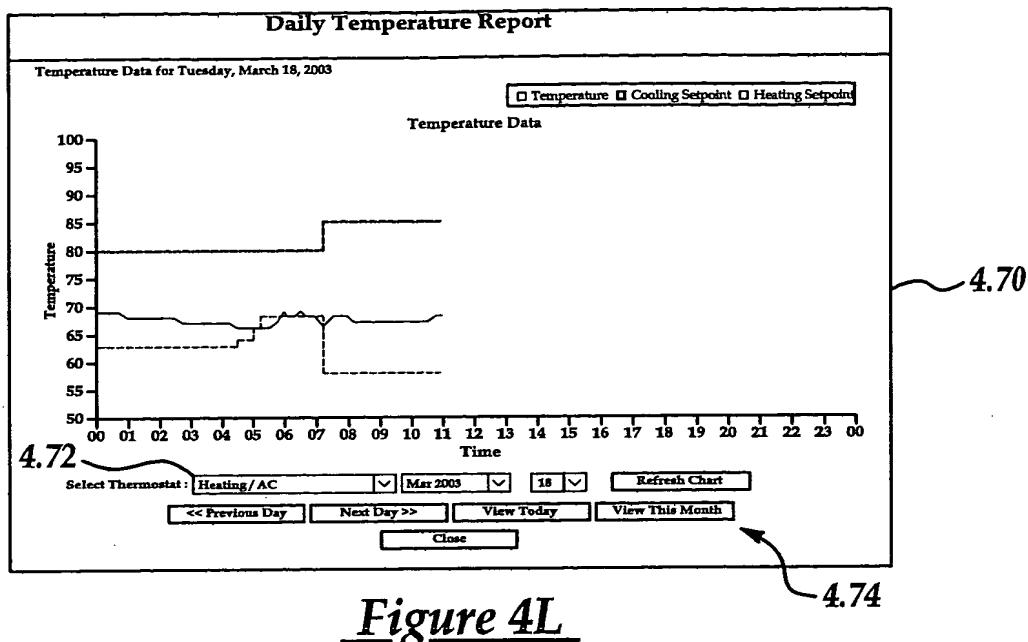


Figure 4L

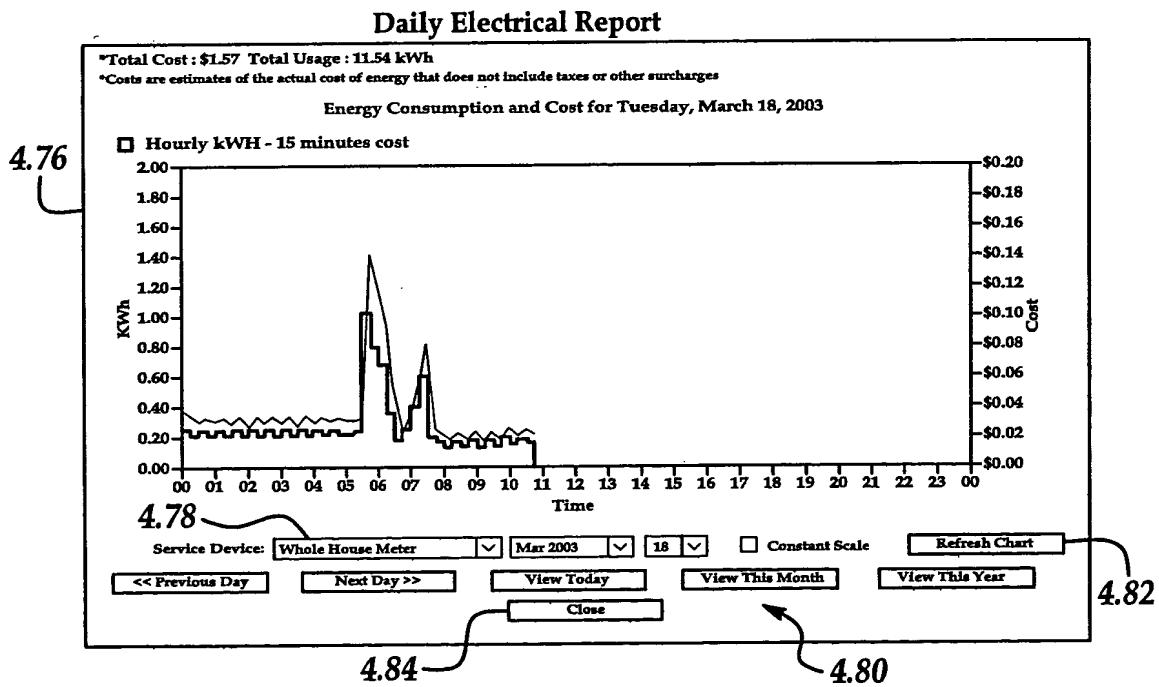
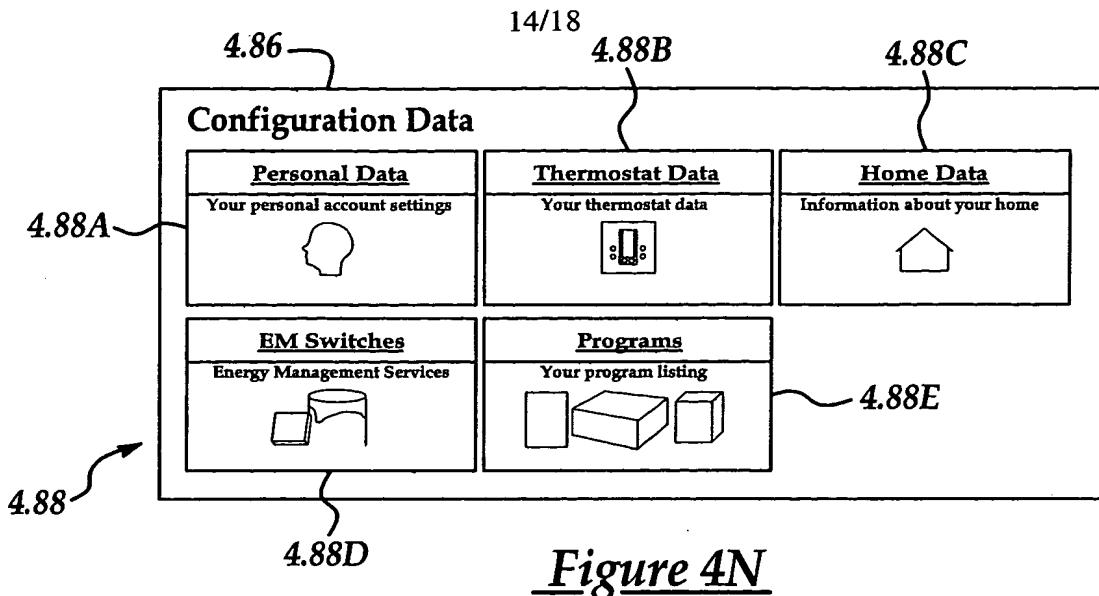


Figure 4M



4.92

Thermostat Data

*Thermostat Name: Heating / AC	<input checked="" type="checkbox"/> Thermostat Active
Heating Type: Electric w/ Electric Emergency Stages: <input type="radio"/> 1 <input type="radio"/> 2 <input checked="" type="checkbox"/> Emergency Heating	
Cooling Type: Electric Heat Pump Stages: <input type="radio"/> 1 <input type="radio"/> 2	
Additional controls: <input type="checkbox"/> Humidifier <input type="checkbox"/> Dehumidifier *Safety Limits: 95 High 50 Low °F *Heat Limits: 75 High 45 Low °F *Alert Limits: 90 High 45 Low °F *Cool Limits: 90 High 65 Low °F	
Default Limits for Thermostat Thermostat Summary Apply Reset	

* = required

Figure 4O

4.92

4.92

Electric: w/ Electric Emergency
Electric: w/ Electric Emergency
Electric: w/ Gas Emergency
Electric: w/ Oil Emergency
Electric Baseboard
Propane
Oil
Steam
Hot Water

4.94

4.94

Electric Heat Pump
Electric Heat Pump
Electric Standard Central Air
Natural Gas
Evaporative

Figure 4Q

Figure 4P

15/18

Program Participation

4.96

Program Listing					
Participate	Product Name	Supply Type	Effective Dates	Effective Daily	
			From	To	From
<input checked="" type="checkbox"/>	Emergency AC Curtailment	On Demand	01/01 - 12/31	12:00am - 11:59pm	
<input checked="" type="checkbox"/>	A Group	On Demand	01/01 - 12/31	12:00am - 11:59pm	
<input type="checkbox"/>	B Group	On Demand	01/01 - 12/31	12:00am - 11:59pm	
<input type="checkbox"/>	Emergency HVAC Curtailment	On Demand	01/01 - 12/31	12:00am - 11:59pm	
<input type="checkbox"/>	Emergency Hot Tub/Spa Curtailment	On Demand	01/01 - 12/31	12:00am - 11:59pm	
<input type="checkbox"/>	Emergency Pool Pump Curtailment	On Demand	01/01 - 12/31	12:00am - 11:59pm	
<input type="checkbox"/>	Emergency Shut Off	On Demand	01/01 - 12/31	12:00am - 11:59pm	
<input type="checkbox"/>	Emergency Water Heater Curtailment	On Demand	01/01 - 12/31	12:00am - 11:59pm	
<input type="checkbox"/>	AfternoonPeaker	Scheduled	04/01 - 10/01	12:00am - 6:00pm	
<input type="checkbox"/>	MorningPeaker	Scheduled	01/01 - 12/31	6:00am - 12:00pm	

Apply

4.100 4.98

Figure 4R

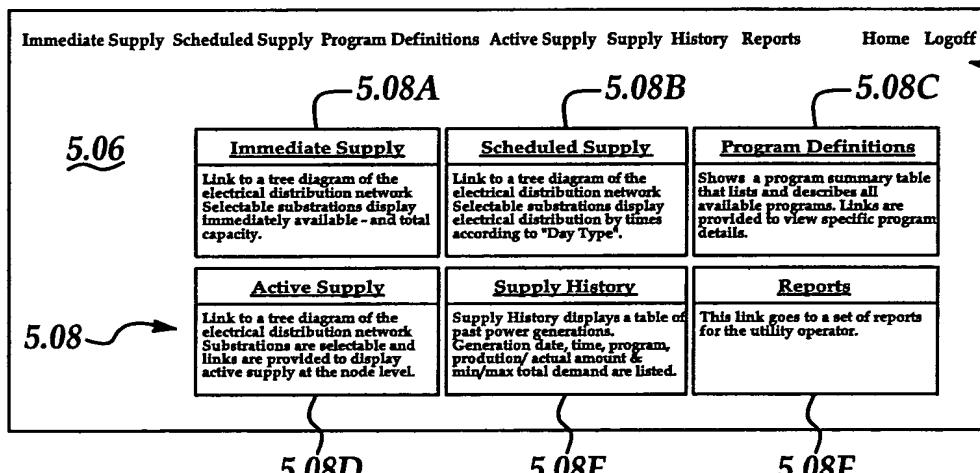


Figure 5A

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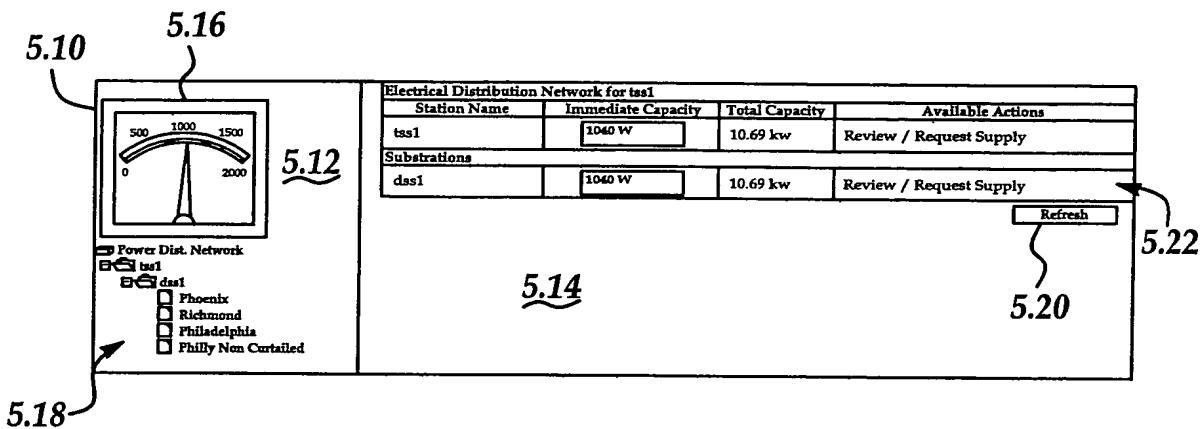


Figure 5B

Available Program Capacity

Node Name : Philadelphia

Generate	Program Name	Available Power	Capacity
<input type="checkbox"/>	Emergency HVAC Curtailment	600 W	7193 W
<input type="checkbox"/>	Emergency Shut Off	600 W	7193 W
<input type="checkbox"/>	Emergency Water Heater Curtailment	0 W	515 W
<input type="checkbox"/>	Emergency Pool Pump Curtailment	0 W	209 W
<input type="checkbox"/>	Emergency Hot Tub/Spa Curtailment	N/A	0 W
<input type="checkbox"/>	Emergency AC Curtailment	600 W	7193 W
<input type="checkbox"/>	B Group	600 W	7193 W
<input type="checkbox"/>	A Group	300 W	7193 W

Duration **5.32**

Tue Mar 18 2003 14:30

5.24 **5.28** **5.30** **5.26** **5.32** **5.34** **5.36** **5.38**

Figure 5C

17/18

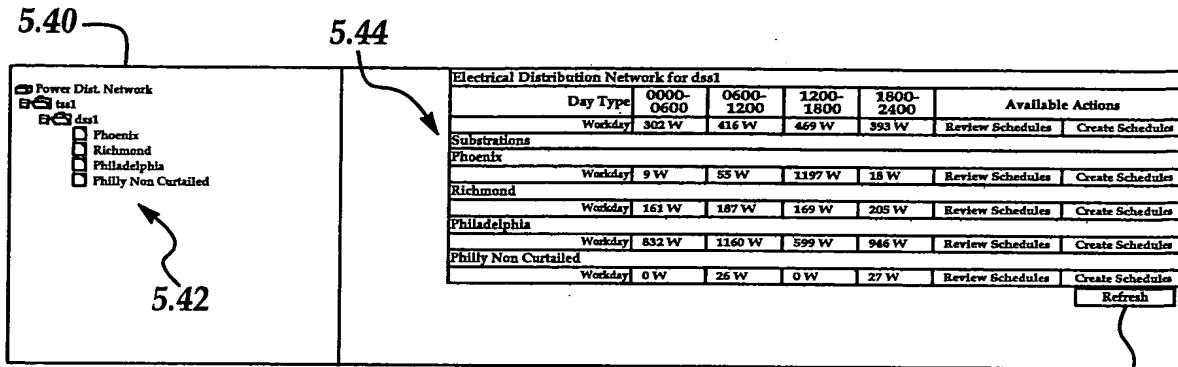


Figure 5D

The figure shows a search interface titled 'Find Eligible Programs for: Phoenix'. It includes fields for Date (Month: 3, Day: 18, Year: 2003), Time (Hours: 0, Minutes: 0, To Hours: 1, Minutes: 0), Desired Supply (W), and Schedule Name. Buttons for 'Submit', 'Reset', and 'Close' are at the bottom.

Figure 5E

The figure shows a table titled 'Program Summary' listing various curtailing programs. The table has two sections: 'Immediate Supply' and 'Scheduled Supply'. The 'Immediate Supply' section includes programs like 'A Group', 'B Group', 'Emergency AC Curtailment', 'Emergency HVAC Curtailment', 'Emergency Hot Tub/Spa Curtailment', 'Emergency Pool Pump Curtailment', 'Emergency Shut Off', and 'Emergency Water Heater Curtailment'. The 'Scheduled Supply' section includes 'AfternoonPeaker' and 'MorningPeaker'. A 'New' button is located at the bottom of the table.

Program Summary	
Program Name	Description
Immediate Supply	
A Group	HVAC Optional and Overrideable
B Group	HVAC Optional and Overrideable
Emergency AC Curtailment	Curtailment of AC systems - Not Overrideable or optional
Emergency HVAC Curtailment	Thermostats Curtailment program - Overrideable and Optional
Emergency Hot Tub/Spa Curtailment	Hot Tub/Spa Curtailment Program
Emergency Pool Pump Curtailment	Pool Pump Curtailment Program
Emergency Shut Off	Emergency program will supply from all devices
Emergency Water Heater Curtailment	Water Heater Curtailment Program
Scheduled Supply	
AfternoonPeaker	This program curtails Waterheater, PoolPumps and HVAC Between 12PM to 4PM
MorningPeaker	Shutdown WaterHeaters and Pool pumps between 6AM and 12 PM
New	

Figure 5F

18/18

Program Definitions

Program Name: [] 5.58

Description: [] 5.60

Supply Type: On Demand Scheduled 5.62

Available Time: From: HH 0 MM 0 To: HH 0 MM 0 5.56

Available Dates: From: MM 1 DD 1 To: MM 1 DD 1

Optional Overrideable 5.64

Device Types To Include: HVAC/TSTAT Water Heater Pool Pump Hot Tub/Spa 5.68

[Back] 5.70 [Save] 5.72 [Reset] 5.74

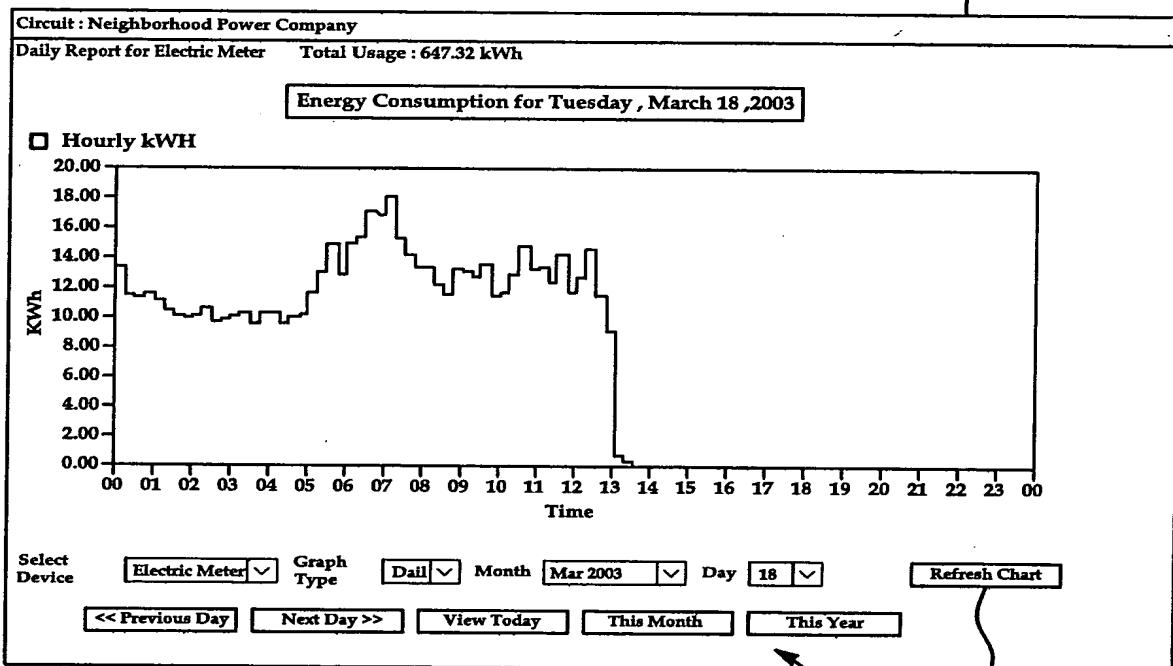


Figure 5H

5.78

5.80

Electric Meter	<input type="button"/>
Thermostat	
Electric Meter	
Water Heater	
Pool Pump	
Hot Tub/Spa	

Figure 5I